

## B. Specification

Please amend the paragraph at page 6, lines 16-23, as follows:

--The inventors of the present invention have made extensive studies with a view to developing a novel ~~polyhydroxyalkanoate~~ polyhydroxyalkanoate having a reactive functional group in a molecule and a novel polyhydroxyalkanoate having a new function obtained by chemically modifying the polyhydroxyalkanoate having a reactive functional group, thereby completing the invention described below.--

Please amend the paragraph at page 37, line 8, to page 38, line 4, as follows:

--Known examples of a method of obtaining a carboxylic acid by subjecting such a carbon-carbon double bond as described above to oxidation cleavage by means of an oxidizing agent include a method involving the use of a permanganate (J. Chem. Soc., Perkin. Trans. 1, 806 (1973)), a method involving the use of a dichromate (Org. Synth., 4, 698 (1963)), a method involving the use of a periodate (J. Org. Chem., 46, 19 (1981)), a method involving the use of nitric acid (Japanese Patent Application Laid-open No. S59-190945), and a method involving the use of ozone (J. Am. Chem. Soc., 81, 4273 (1959)). In addition, ~~Macromolecular~~ Comptes Rendus de l' Academie des Sciences - Series IIC - Chemistry, 4, 289-293 (2001) has reported a method of obtaining a carboxylic acid involving subjecting a carbon-carbon double bond of a side chain terminal of a polyhydroxyalkanoate produced by using an

organism to a reaction under ~~an acidic~~ acidic conditions ~~by means of~~ using potassium permanganate as an oxidizing agent. A similar method can be used in the present invention.--

Please amend the paragraph at page 49, line 4, page 51, line 15, as follows:

--Examples of the compound represented by the chemical formula (100) include methyl chloroformate, ethyl chloroformate, propyl chloroformate, isopropyl chloroformate, butyl chloroformate, cyclohexyl chloroformate, benzyl chloroformate, methyl bromoformate, ethyl bromoformate, propyl bromoformate, isopropyl bromoformate, butyl bromoformate, cyclohexyl bromoformate, benzyl bromoformate, methyl chloroacetate, ethyl chloroacetate, propyl chloroacetate, isopropyl chloroacetate, butyl chloroacetate, cyclohexyl chloroacetate, benzyl chloroacetate, methyl bromoacetate, ethyl bromoacetate, propyl bromoacetate, isopropyl bromoacetate, butyl bromoacetate, cyclohexyl bromoacetate, benzyl bromoacetate, methyl 3-chloropropionate, ethyl 3-chloropropionate, propyl 3-chloropropionate, isopropyl 3-chloropropionate, butyl 3-chloropropionate, cyclohexyl 3-chloropropionate, benzyl 3-chloropropionate, methyl 3-bromopropionate, ethyl 3-bromopropionate, propyl 3-bromopropionate, isopropyl 3-bromopropionate, butyl 3-bromopropionate, cyclohexyl 3-bromopropionate, benzyl 3-bromopropionate, methyl 4-chlorobutyrate, ethyl 4-chlorobutyrate, propyl 4-chlorobutyrate, isopropyl 4-chlorobutyrate, butyl 4-

chlorobutyrate, cyclohexyl 4-chlorobutyrate, benzyl 4-chlorobutyrate, methyl 4-  
 bromobutyrate, ethyl 4-bromobutyrate, propyl 4-bromobutyrate, isopropyl 4-  
 bromobutyrate, butyl 4-bromobutyrate, cyclohexyl 4-bromobutyrate, benzyl 4-  
 bromobutyrate, methyl 5-chlorovalerate, ethyl 5-chlorovalerate, propyl 5-  
 chlorovalerate, isopropyl 5-chlorovalerate, butyl 5-chlorovalerate, cyclohexyl 5-  
 chlorovalerate, benzyl 5-chlorovalerate, methyl 5-bromovalerate, ethyl 5-  
 bromovalerate, propyl 5-bromovalerate, isopropyl 5-bromovalerate, butyl 5-  
 bromovalerate, cyclohexyl 5-bromovalerate, benzyl 5-bromovalerate, methyl 6-  
 chlorohexanoate, ethyl 6-chlorohexanoate, propyl 6-chlorohexanoate, isopropyl 6-  
 chlorohexanoate, butyl 6-chlorohexanoate, cyclohexyl 6-chlorohexanoate, benzyl 6-  
 chlorohexanoate, methyl 6-bromohexanoate, ethyl 6-bromohexanoate, propyl 6-  
 bromohexanoate, isopropyl 6-bromohexanoate, butyl 6-bromohexanoate, cyclohexyl 6-  
 bromohexanoate, benzyl 6-bromohexanoate, methyl 7-chloroheptanoate, ethyl 7-  
 chloroheptanoate, propyl 7-chloroheptanoate, isopropyl 7-chloroheptanoate, butyl 7-  
 chloroheptanoate, cyclohexyl 7-chloroheptanoate, benzyl 7-chloroheptanoate, methyl 7-  
 bromoheptanoate, ethyl 7-bromoheptanoate, propyl 7-  
~~bromoheptanoate~~bromoheptanoate, isopropyl 7-bromoheptanoate, butyl 7-  
 bromoheptanoate, cyclohexyl 7-bromoheptanoate, benzyl 7-bromooctanoate, methyl 8-  
 chlorooctanoate, ethyl 8-chlorooctanoate, propyl 8-chlorooctanoate, isopropyl 8-  
 chlorooctanoate, butyl 8-chlorooctanoate, cyclohexyl 8-chlorooctanoate, benzyl 8-

chlorooctanoate, methyl 8-bromooctanoate, ethyl 8-bromooctanoate, propyl 8-bromooctanoate, isopropyl 8-bromooctanoate, butyl 8-bromooctanoate, cyclohexyl 8-bromooctanoate, benzyl 8-bromooctanoate, methyl 9-chlorononanoate, ethyl 9-chlorononanoate, propyl 9-chlorononanoate, isopropyl 9-chlorononanoate, butyl 9-bromononanoate, cyclohexyl 9-chlorononanoate, benzyl 9-chlorononanoate, methyl 9-bromononanoate, ethyl 9-bromononanoate, propyl 9-bromononanoate, isopropyl 9-bromononanoate, butyl 9-bromononanoate, cyclohexyl 9-bromononanoate, and benzyl 9-bromononanoate.--

Please amend the paragraph at page 55, line 4, to page 56, line 7, as follows:

--In the production of a polyester containing a unit represented by the chemical formula (6) using an intramolecular ring-closed compound of  $\omega$ -hydroxycarboxylic acid represented by the chemical formula (8) of the present invention, a polymerization method is not particularly limited, and solution polymerization, slurry polymerization, mass polymerization, or the like can be adopted.

In the case where solution polymerization is adopted, a solvent to be used is not particularly limited, and an inert solvent such as an aliphatic hydrocarbon or cyclic hydrocarbon having 5 to 18 carbon atoms or an aromatic hydrocarbon having 6 to 20 carbon atoms, tetrahydrofuran, chloroform, o-dichlorobenzene, dioxane, or the like can be used. Any one of conventionally known ring-opening polymerization catalysts can

be used as a catalyst to be used for polymerization. Examples thereof include stannous chloride, ~~stannine~~-stannic chloride, stannous fluoride, stannous acetate, stannous stearate, stannous octanoate, stannous oxide, stannic oxide, and other tin salts. The examples further include triethoxyaluminum, tri-n-propoxy-aluminum, tri-iso-propoxyaluminum, tri-n-butoxyaluminum, tri-iso-butoxyaluminum, aluminum chloride, di-iso-propylzinc, dimethylzinc, diethylzinc, zinc chloride, tetra-n-propoxytitanium, tetra-n-butoxytitanium, tetra-t-butoxytitanium, antimony trifluoride, lead oxide, lead stearate, titanium tetrachloride, boron trifluoride, a boron trifluoride ether complex, triethylamine, and tributylamine.--

Please amend the paragraph at page 59, line 22, to page 60, line 18, as follows:

--The molecular weight of the polyhydroxyalkanoate of the present invention can be measured as a relative molecular weight or an absolute molecular weight. The molecular weight can be simply measured by means of, for example, gel permeation chromatography (GPC). A specific measurement method by means of GPC is as follows. The ~~polyhydroxyalkanote~~-polyhydroxyalkanoate is dissolved in advance into a solvent into which the polyhydroxyalkanoate is soluble, and the molecular weight is measured in a mobile phase of the same solvent. A differential refractometer (RI) or an ultraviolet (UV) detector can be used as a detector depending on the

polyhydroxyalkanoate to be measured. The molecular weight is determined as a result of relative comparison with a standard sample (such as polystyrene or polymethyl methacrylate). The solvent can be selected from solvents into each of which a polymer is soluble, such as dimethylformamide (DMF), dimethyl sulfoxide (DMSO), chloroform, tetrahydrofuran (THF), toluene, and hexafluoroisopropanol (HFIP). In the case of a polar solvent, the molecular weight can be measured through the addition of a salt.--